



SPENDING TIME OUTDOORS: THE EDUCATOR AND THE CHILD

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ABSTRACT

Being outdoors allows children to explore, experience natural phenomena, it gives them more space and freedom for development. Educators should arouse children's interest in nature so that children develop feelings and learn from experience. The research aimed at determining the attitudes and reflections of educators employed in preschool institutions in the Republic of Croatia regarding the attitudes and reflections of educators about being outdoors. The research was conducted on a sample of 351 educators. A measuring instrument designed for the needs of this research was used. The results of the research show that 53% of educators agree or completely agree with the statement that they spend their free time in nature. Furthermore, 35.6% spend up to 6 hours a week walking, recreation, cycling and the like. Regarding the statement which limiting factors prevent going outdoors with children, 58.1% of educators completely agree or agree with the statement. We asked the respondents which other limiting factor they see as an obstacle and 36.9% mentioned the weather. Educators are the ones who decide whether children will spend time outdoors. This affects children's different experiences because their time outdoors depends on the beliefs and attitudes of their educators.

Keywords: educator; preschool child, spending time outdoors.

*„ In a society where nature is less and less accessible to children, the role of kindergartens is becoming more and more important. “
(Valjan Vukic, 2012:128)*

INTRODUCTION

Outdoor activities are planned in all preschool institutions. Educators try to ensure that the children who attend the nursery spend as much time outdoors as possible. Being outdoors is definitely good for health, movement, and overall psychophysical development of the child. The fast-paced lifestyle and the influence of modern technology have shortened the time spent outdoors by children and adults. Everyone spends the little

free time that remains in a way that suits them, so Valjan Vukic (2013) states that, if we observe free time as a phenomenon of modern society, we see it as a time in which a person indulges in a certain activity of his own choice. Previsic (2000, p. 405) states that free time is “the time of active rest, leisure, positive development, socialization, humanization and creative confirmation of a personality”. Children, as well as adults, today spend far less time outside, in nature, than previous generations. According to the recommendations of competent

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institutions, for the quality of health, an adult should among other things engage in physical activities of moderate intensity for at least two and a half hours a week (Jurakic & Heimer, 2012). Louv (2015, p.7) points out that “contrary to television, nature does not steal time, but increases it.” Furthermore, he states that nature heals a child living in a “torn” family. It is a blank slate on which the child draws and reinterprets the child’s fantasy. Nature requires visualization and the full use of the senses, which is why the child is encouraged to be creative. Being outdoors and interacting with nature encourages attachment to nature and better and longer-term learning, the development of sensitivity to the environment. Preschools are certainly the ones that most plan regular stay and activities in nature (Lujic, 2020). Nedovic and Morrissey (2013) also say that, if we offer children natural materials, children have better quality play that lasts longer and is characterized by more diverse socialization and communication among children, and they show greater focus of attention and maintain concentration in play longer than in more traditional yard spaces. Being outdoors allows children to directly explore the world, experience natural phenomena directly, and have more space and freedom to develop symbolic games. Relationships with peers and adults are different: children enter into conflicts less often, are less frustrated and “cross boundaries” more easily without fear of warnings from adults about noise, disorder, etc. (Maynard & Waters, 2007). Valjan Vukic (2012) points out that children get rid of excess energy in outdoor play (ball games, on slides, climbing frames, swings, etc.); in addition, they examine the limits, possibilities and abilities of their bodies. Studying children’s stay in natural environments in Slovenian kindergartens, Kos (2010) found that out of 78 teachers surveyed, more than 80% of them do not spend more than four hours a week in natural environments with children, and most of that time is spent on walks. When interviewing the children, they asked them if they wanted to spend more time outside: 78% of them answered positively. Lohf, Bestle-Körfer, and Stollenwerk (2014) warn of the big problem of today’s children, who spend more and more time indoors with the television, while also using modern technology. Such a way of spending free time certainly harms all segments of the child’s development and results in developmental disabilities. Kos (2010) states that preschool children want to spend more time outdoors. If they are given the opportunity to play longer in a natural environment,

they will demand an even longer stay outdoors. That is why play and exploration in the nature that surrounds us are very important because they affect children’s development. In addition, the natural environment is very stimulating for the child, who, developing self-confidence, creativity, imagination, gets rid of some fears (Renz-Polster & Hünter, 2017). Educators decide on children’s stay outside, considering the weather conditions, even in the rain. That way, a person who is willing to change his work and likes challenges will decide more simply (Tomljanovic, 2018). In a study conducted in Ohio, Copeland, Kendeigh et al. (2012) concluded that, although educators are aware of the benefits and limitations of being outdoors, in the end, they are the ones who decide whether children will be outdoors, how much, when and how, what materials will be used and on which playgrounds they can play. Furthermore, they concluded that this can affect the different experiences of children because their stay outdoors depends solely on the beliefs and attitudes of their educators. Thus, educators’ attitudes and beliefs about being outdoors directly affect children’s experience in kindergarten and if educators have a negative attitude towards them aforementioned, children’s experience and development will not be effectively realized (Stevanovic, 2003). The role of educators is to arouse interest in the environment in children so that children develop feelings and learn from experience (Petkou, Andrea, & Anthrakopoulou, 2021). What kind of incentives and problem situations will be offered to the children depends on the educators’ motivation and attitude towards being outdoors, thus enabling them to acquire new knowledge and skills. By putting children in challenging outdoor activities where they can explore, be creative and manipulate, we make them creators of their own knowledge (Hlad, 2022).

METHODOLOGY

The Aim of the Research

The aim of the research was to determine the attitudes and reflections of educators working in preschool institutions in the Republic of Croatia regarding educators’ attitudes and beliefs about being outdoors.

The Measuring Instrument

For the purposes of the research, a measuring instrument was designed, which was distributed to Facebook groups of educators in preschool

institutions throughout the Republic of Croatia. Before the actual posting in the Facebook group, the questionnaire had to be reviewed and approved by the administrator. The questionnaire consisted of three independent variables and ten dependent variables based on a Likert-type rating scale and one open-ended question. During the implementation of the research, the code of ethics was fully respected. The research participants were given written instructions on how to fill out the questionnaire, it was pointed out that the survey is anonymous, that participation in the survey is voluntary and that they can at any time refuse to give further answers.

The Sample

The research was conducted on a sample of 351 educators working in preschool institutions in the Republic of Croatia. 337 (96.0%) female respondents and 14 (4.0%) male respondents participated in the research. The largest number of research participants had less than 6 years of service: 34.4%, followed by those with 6 to 11 years of service, 21.7%, while there were no respondents with more than 30 years of service. The characteristics of the sample with regard to years of work are presented in Table 1.

Table 1. Characteristics of the sample with regard to years of work

| years of work | <i>f</i> | % |
|---------------------|----------|-------|
| less than 6 years | 121 | 34.4 |
| from 6 to 11 years | 76 | 21.7 |
| from 11 to 15 years | 62 | 17.7 |
| from 15 to 20 years | 47 | 13.4 |
| from 20 to 25 years | 32 | 9.1 |
| from 25 to 30 years | 13 | 3.7 |
| more than 30 years | 0 | 0.0 |
| Total: | 351 | 100.0 |

The division of research participants with regard to the age group of the children they work with is the second statement. The largest number of research participants work in mixed age groups, 36.1% of them, followed by those who work in nursery groups,

27.4%, while the least number of respondents work in the group of children with autism, i.e. in the group of children with developmental disabilities – there are .3% of them in each group.

Table 2. Schedule of research participants with regard to the age group of children

| age group of children | <i>f</i> | % |
|---|----------|-------|
| nursery group | 96 | 27.4 |
| mixed group | 127 | 36.1 |
| kindergarten | 83 | 23.6 |
| preschool | 43 | 12.3 |
| other combinations | | |
| - a group of children with autism | 1 | .3 |
| - a group of children with developmental disabilities | 1 | .3 |
| Total: | 351 | 100.0 |

In order to determine whether there are statistically significant differences in the distribution of the responses of the research participants with regard to the independent variables gender and length of service of the respondents, the Kolmogorov-

Smirnov test was applied. Significance values for both mentioned independent variables are $p = .000 < .05$, which means that there are statistically significant differences in the normality of the distribution of respondents' answers.

Table 3. Kolmogorov-Smirnov test of normality of distribution

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilkov | | |
|-----------------------------------|---------------------------------|-----|------|----------------|-----|------|
| | coefficient | df | p | coefficient | df | p |
| sex | .541 | 351 | .000 | .193 | 351 | .000 |
| work experience of the respondent | .199 | 351 | .000 | .865 | 351 | .000 |

a. Lilliefors significance correction

RESEARCH RESULTS

The first few items that we asked the research participants to comment on were related to their attitude towards spending time outdoors, i.e. whether they spend it outdoors or in some other way. A large number of research participants

could not make up their minds about the offered items: indecisiveness ranges from 27.1% for item (3) to 33.9% for item (4). Furthermore, it is noted that more than half of the respondents, 54.3% of them, spend their free time doing household chores, while 53.0% of the research participants spend their free time in nature.

Table 4. I usually spend my free time...

| | I don't agree at all | I disagree | I can not decide | I agree | I completely agree | M SD | χ^2 df p |
|------------------------------------|----------------------|------------|------------------|---------|--------------------|---------------|-----------------------------------|
| (1)... in sports activities | 12.5 | 26.8 | 32.2 | 20.5 | 8.0 | 2.85 1.128 | 69.356 ^a 4 .000 |
| (2)... doing housework | 3.1 | 19.9 | 33.9 | 29.6 | 13.4 | 3.30 1.034 | 107.789 ^a 4 .000 |
| (3)... in hanging out with friends | .9 | 8.0 | 27.1 | 36.8 | 27.4 | 3.82 .954 | 157.191 ^a 4 .000 |
| (4)... in creative expression | 10.8 | 31.1 | 33.9 | 18.5 | 5.7 | 2.77 1.053 | 106.422 ^a 4 .000 |
| (5)... in nature | 2.8 | 12.5 | 31.6 | 34.8 | 18.2 | 3.53 1.019 | 123.886 ^a 4 .000 |

a. 0 cell (0.0%) has expected frequencies less than 5. The minimum expected cell frequency is 70.2.

All calculated chi-square values are high, with four degrees of freedom and significance $p = .000 < .05$. Such high chi-square values

indicate that the response frequencies of the research participants differ statistically significantly. The obtained asymmetry values are:

| for item | asymmetry is |
|----------|--------------|
| (1) | .114 |
| (2) | -.069 |
| (3) | -.423 |
| (4) | .200 |
| (5) | -.326 |

and for items (1) and (4), whose asymmetry has a positive sign, it means that the majority of the obtained answers are to the left of the arithmetic mean, i.e. among the smaller values; for other items, the asymmetry sign is negative, which means that most of the obtained answers are located to the right of the arithmetic means. The next item on which the research participants expressed their views related to the time that educators spend walking, recreation, cycling, etc. The obtained results are shown in Table 5. It can be noted that most of the respondents,

35.6% of them, spend up to 6 hours a week walking, recreation, riding bicycles, etc. Those who spend time walking, in recreation, cycling, and the like; less than 2 hours is 14.2%, while those who do it for more than 8 hours is 7.1%. The arithmetic mean is 2.67, with a standard deviation of 1.087. The chi-square value is high, equal to 108.587, and indicates that the differences between the answers are statistically significant. Since the asymmetry has a positive sign, it means that most of the answers are to the left of the arithmetic mean, i.e. among smaller values.

Table 5. The time that educators spend weekly on walks, recreation, cycling, and the like

| | <i>f</i> | % | <i>M</i> <i>SD</i> | asymmetry | χ^2 <i>df</i> <i>p</i> |
|--------------------------|----------|-------|-----------------------|-----------|-----------------------------------|
| Less than 2 hours a week | 50 | 14.2 | | | |
| Up to 4 hours a week | 108 | 30.8 | | | 108.587 ^a |
| Up to 6 hours a week | 125 | 35.6 | 2.67 | .344 | 4 |
| Up to 8 hours a week | 43 | 12.3 | 1.087 | | .000 |
| More than 8 hours a week | 71 | 7.1 | | | |
| Total: | 351 | 100.0 | – | – | – |

a. 0 cell (0.0%) has expected frequencies less than 5. The minimum expected cell frequency is 70.2.

The next two items that were given to the respondents to express their opinion on were: the educator affects the quality and quantity of spending time with children outdoors (in nature), among the children in the group, the educator can recognize those children who stay with their parents outdoors (in nature).

The obtained data are shown in Table 6. It can be seen that the vast majority of research participants have a positive attitude about the set items: – with item (7) 90.9% of respondents agree (20.8%) or completely agree (70.1%), and – with item (8) 93.7% of respondents completely agree (74.9%) or agree (18.8%).

Table 6. Data obtained with items (7) and (8)

| | items | | | |
|-----------------------|----------|-------|----------|-------|
| | (7) | | (8) | |
| | <i>f</i> | % | <i>f</i> | % |
| I completely disagree | 2 | .6 | 2 | .6 |
| I disagree | 2 | .6 | 2 | .6 |
| Indecisive | 28 | 8.0 | 18 | 5.1 |
| I agree | 73 | 20.8 | 66 | 18.8 |
| I completely agree | 246 | 70.1 | 263 | 74.9 |
| Total: | 351 | 100.0 | 351 | 100.0 |

Descriptive statistics values are:

– for item (7): $M = 4.59$, $SD = .711$, $\chi^2 = 598.245$ ($df = 4$, $p = .000$), asymmetry -1.916;

– for item (8): $M = 4.67$, $SD = .654$, $\chi^2 = 701.094$ ($df = 4$, $p = .000$), asymmetry -2.373.

For both items, the chi-square values are very high, which means that the frequencies of the research participants' responses (for both items) are distributed statistically significantly differently. This is also indicated by the

coefficients of asymmetry - both are negative - so most of the answers are distributed to the right of the arithmetic mean, among higher values. We checked whether items (7) and (8) are connected, that is, whether they correlate, by calculating the Pearson correlation coefficient r : its value is $r = .238$, which means that, according to Guilford (1956, 145), the correlation is low, connection is small and significant at the .01 significance level.

Table 7. Correlation between particles (7) and (8)

| items | items | |
|-------|---------------------------------|--------|
| | (6) | (7) |
| (7) | Pearson correlation coefficient | 1 |
| | significance | |
| (8) | N | 351 |
| | Pearson correlation coefficient | .238** |
| (8) | significance | .000 |
| | N | 351 |

** The correlation is significant at the 0.01 level (two-sided).

In order to determine how often educators stay outdoors with kindergarten children and what limiting factors prevent them from going outside with their children, we asked the participants of the study to express their opinions on the following items: (9) how often educators spend time outdoors with kindergarten children (10) which limiting factors prevent going outdoors with children.

Data related to children's spending time outdoors are shown in Table 8. More than ¼ of respondents (27.1%) state that they stay outdoors with children

every day, 29.9% of them stay outdoors with children several times a week, while 29.6% of respondents do so once a week; 10.8% of them stay at least once a month. The value of the chi-square test is high and amounts to $\chi^2 = 110.410^a$ ($df = 4$, $p = .000 < .05$), which means that the responses of the research participants are distributed statistically significantly differently. The value of asymmetry (.394) tells us about this, and since asymmetry is positive, it means that most of the answers are distributed to the left of the arithmetic mean ($M = 2.32$), therefore, among smaller values.

Table 8. Data related to the item (9)

| I stay outdoors with children ... | <i>f</i> | % | <i>M</i> <i>SD</i> | asymmetry |
|-----------------------------------|----------|-------|-----------------------|-----------|
| ... every day | 95 | 27.1 | | |
| ... several times a week | 105 | 29.9 | | |
| ... once a week | 104 | 29.6 | 2.32 | .394 |
| ... at least once a month | 38 | 10.8 | 1.064 | |
| ... other | 9 | 2.6 | | |
| Total: | 351 | 100.0 | | |

$\chi^2 = 110.410^a$, $df = 4$, $p = .000 < .05$

a. 0 cell (0.0%) has expected frequencies less than 5. The minimum expected cell frequency is 70.2.

The obtained data related to the item (10) and the calculated values of descriptive statistics are presented in Table 9. As the most important factor that prevents going outside with children, the research participants state a large number of children in the group: this is the opinion of 76.9% of respondents who agree with the statement

(18.8%), that is, they completely agree (58.1%); followed by the proximity of the road, with which 23.9% of respondents agree, that is, 14.2% completely agree. The least present factor is the fear of injury - 19.9% of respondents completely disagree with this factor, or 42.0% of them disagree.

Table 9. Limiting factors that prevent from going outside with children

| Factors that prevent going to nature with children | I completely disagree | I disagree | I agree | I completely agree |
|--|-----------------------|------------|---------|--------------------|
| | in percentages | | | |
| a large number of children in the group | 6.0 | 17.1 | 18.8 | 58.1 |
| fear of children's injuries | 21.7 | 49.0 | 19.9 | 9.4 |
| proximity to roads | 19.9 | 42.0 | 23.9 | 14.2 |
| attitudes of parents | 20.8 | 38.8 | 29.3 | 11.1 |

| Values of descriptive statistics | Limiting factors that prevent from going outside with children | | | |
|----------------------------------|--|-----------------------------|---------------------|----------------------|
| | a large number of children in the group | fear of children's injuries | proximity to roads | attitudes of parents |
| arithmetic mean | 4.05 | 2.47 | 2.71 | 2.71 |
| standard deviation | 1.344 | 1.284 | 1.395 | 1.371 |
| asymmetry | -1,122 | ,714 | ,408 | ,303 |
| Chi-square | 355.652 ^a | 228.330 ^a | 59.997 ^b | 58.744 ^b |

For all chi-squares, it is: $df = 4$, $p = .000 < .05$

a. 0 cell (0.0%) has expected frequencies less than 5. The minimum expected cell frequency is 70.2.

b. 0 cell (0.0%) has expected frequencies less than 5. The minimum expected cell frequency is 87.8.

The chi-squares are of high values, which means that the responses of the research participants are distributed statistically significantly differently. One asymmetry value has the negative sign, so most of the answers are distributed to the right of the arithmetic mean, among the larger values; the remaining three asymmetry values have

a positive sign and indicate that the majority of responses are distributed to the left of the arithmetic mean, i.e. among smaller values. Correlation between the mentioned items - the values of two correlation coefficients are statistically significant at the 1% significance level, while one coefficient is significant at the .05 level.

Table 10. Correlation between particles: How often educators stay outdoors with kindergarten children and Which limiting factors prevent going outdoors with children

| item | | how often educators stay outdoors with kindergarten children | a large number of children in the group | fear of children's injuries | proximity to roads | attitudes of parents |
|------|---------------------------------|--|---|-----------------------------|--------------------|----------------------|
| (8) | Pearson correlation coefficient | 1 | .274** | .114* | -.035 | .149** |
| | significance | | .000 | .033 | .514 | .005 |
| | N | | | 351 | | |

** The correlation is significant at the .01 level (two-tailed).

* The correlation is significant at the .05 level (two-tailed).

According to Guilford (1956, 145), for the coefficients $r = .114$ and $r = .149$ the correlation is insignificant, the connection is almost non-existent, and for the coefficient $r = .274$ the correlation is low, the connection is weak. The next question that we followed up on

the previous statement was open-ended. We asked them to write down what, in addition to the above, are the limiting factors for taking children outside the kindergarten yard. 136 respondents answered that question. We grouped the obtained data and present it in Table 11.

Table 11. Grouped data

| Other limiting factors | <i>f</i> | % |
|--|----------|-------|
| Children who do not walk | 23 | 16.9 |
| Weather conditions | 50 | 36.9 |
| One educator (short time together in a shift) | 38 | 27.7 |
| Children with special needs (especially if they do not have an assistant) | 10 | 7.6 |
| A different attitude of a colleague | 5 | 3.6 |
| Approval of the principal/kindergarten policy | 5 | 3.6 |
| Structured schedule | 2 | 1.6 |
| Staying in the forest is reserved mainly for the colder months due to the fear of bugs, insects and reptiles | 1 | 0.7 |
| Fear of off-leash dogs | 1 | 0.7 |
| We are our own limiting factor | 1 | 0.7 |
| Total: | 136 | 100.0 |

One respondent wrote a very interesting thought/question: *Parents support going to nature and*

like their children to be outside, but they don't like their children to get dirty, so what now?

Table 12. Outdoor activities of preschool children

| Children's outdoor activities | <i>f</i> | % |
|---|----------|-------|
| free in the game | 92 | 26.2 |
| in organized activities | 5 | 1.4 |
| a combination of free play and organized activities | 254 | 72.4 |
| Total: | 351 | 100.1 |

Table 12 shows that the activity of preschool children in nature takes place mostly as a combination of free play and organized activities (72.4%), while only 1.4% of respondents stated that children's activity in nature takes place in organized activities.

DISCUSSION/CONCLUSION

Scientists define the concept of free time differently. Among other things, the reason is that philosophers, sociologists, psychologists, pedagogues, etc. deal with the study of free time. When defining free time, it is important to be aware of the importance of creative, active, meaningful and structured spending of free time (Mlinarevic & Gajger, 2010). In our research, 53% of educators agree or completely agree with the statement that they spend their free time in nature. Furthermore, 35.6% spend up to 6 hours a week walking, recreation, cycling, and the like. When we observe the educators and their time outdoors and whether they directly influence the going outside the kindergarten yard, we found that 90.9% of the educators agree or completely agree with the statement that the educator influences the quality and quantity of spending time with children outdoors (in nature). Experts say it's good to get out, regardless of the weather. In relation to the frequency with which educators spend time outdoors with kindergarten children, we found that 27.1% of educators spend time outdoors with their children every day, and 29.9% several times a week. Weather conditions and being outdoors is recommended every day regardless of the weather. Rain has its charms for children. Sometimes adults misjudge that it is better to keep a child indoors because it is cold, windy, and/or raining. If we decide to go out, we should take care of appropriate footwear, clothing and time spent outdoors. Staying outdoors is better to be postponed if the temperature drops below -10 degrees. For staying outdoors, it is necessary to respect the season, weather conditions, length of stay and appropriate clothing and footwear (Pihac, 2011). With the statement which limiting

factors prevent children from going outdoors, 58.1% of educators fully agree or agree with the statement. We asked the respondents which other limiting factor they see as an obstacle and 36.9% mentioned the weather conditions. Petric (2019) believes that success in working with children in an early and preschool education institution largely depends on the educator and his initiative. Jensen (2010) states that in the countries of northern Europe it is customary to put children to nap in the open air. It is part of a long-standing practice at home and in nurseries because they believe that staying in the open air is good. Pihac (2011) points out that children can never have too much play, movement and joy, and that is why it is important to enable them from an early age. Children need to be freed from stress, tension and aggression, and that is why play, i.e. outdoor movement, is desirable because children relax. If the child moves too little, his natural urge to move decreases. Over time, it can leave consequences on the child's motor skills, which can hardly be compensated for later. Based on the teachers' answers, guidelines for further research in the area of the importance of children being outdoors, child development and ways of organizing outdoor activities can be noted. There is a need to expand and deepen the study of educators' attitudes on how to motivate them to take children outside to play, walk and explore the environment every day.

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